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WHAT IS CLAIMED IS:

1           1. A method of updating a local I/O resource table at a host in a network cluster, the I/O  
2           resource table identifying the configuration and the allocation of I/O resources in the network cluster,  
3           said method comprising:  
4               obtaining a list of other hosts in a network cluster including their addresses;  
5               establishing a connection to one or more of the other hosts in the cluster;  
6               obtaining at least a portion of an I/O resource table from one or more of the other hosts in  
7           the network cluster;  
8               identifying the I/O resource table obtained from the other hosts in the cluster that is the most  
9           current; and  
10            updating the host's local I/O resource table based on the most current I/O resource table.

1           2. The method of claim 1 wherein each said I/O resource table includes a time and date  
2           stamp, said step of obtaining at least a portion of an I/O resource table from each of the other hosts  
3           comprises obtaining at least a time and date stamp of the I/O resource table from each of the other  
4           hosts.

1           3. The method of claim 1 wherein said step of obtaining at least a portion of an I/O resource  
2           table comprises obtaining the I/O resource table from each of the other hosts in the network cluster.

1           4. The method of claim 1 wherein said step of updating comprises the step of updating the  
2           host's local I/O resource table based on the most current I/O resource table if the most current I/O  
3           resource table is more current than the host's local I/O resource table.

1           5. The method of claim 1 wherein each I/O resource table identifies a network address and  
2           owner of each of a plurality of I/O resources in the host's network cluster.

1           6. The method of claim 5 wherein the I/O resource table identifies an owner by identifying  
2           one or more hosts in the cluster that have access to or may use the I/O resource.

1           7. The method of claim 1 wherein each of the other host's I/O resource table includes a time  
2           and date stamp or version number, said step of identifying comprising the step of identifying the  
3           I/O resource table obtained from the other hosts in the cluster that is the most current based on a  
4           comparison of the time and date stamp or version number of each I/O resource table.

1           8. A method of updating an I/O resource table at a host in a network cluster, the I/O resource  
2           table identifying the configuration and the allocation of I/O resources in the network cluster, said  
3           method comprising:

4           establishing a connection to a central database;

5           obtaining from the central database a list of other hosts and I/O units in a network cluster  
6           including their addresses;

7 establishing a connection to one or more of the other hosts in the cluster;  
8 obtaining at least a portion of an I/O resource table from one or more of the other hosts in  
9 the network;  
10 identifying the I/O resource table of the other hosts in the cluster that is the most current;  
11 updating the host's local I/O resource table based on the most current I/O resource table;  
12 establishing a connection to one or more I/O units in the cluster;  
13 determining from the I/O units if there have been I/O devices added or removed from the  
14 cluster;  
15 further updating the host's local I/O resource table if I/O devices have been added or  
16 removed from the cluster.

1 9. The method of claim 8 wherein said step of determining comprises the steps of:  
2 obtaining a list of the I/O controllers included within one or more I/O units and identification  
3 information of each I/O controller within the one or more I/O units;  
4 establishing a connection to one or more of the I/O controllers;  
5 obtaining from each I/O controller a list of I/O devices connected to the I/O controller.

1 10. The method of claim 9 wherein said step of obtaining a list comprises the step of  
2 obtaining a list of the I/O controllers within one or more I/O units and a controller number of each  
3 I/O controller within the one or more I/O units.

1           11. A computer program encoded on a computer readable medium for updating a local I/O  
2 resource table at a host in a network cluster, the I/O resource table identifying the configuration and  
3 the allocation of I/O resources in the network cluster, the computer program causing the following  
4 to be performed when executed by a computer:

5           obtaining a list of one or more of the other hosts in a network cluster including their  
6 addresses;

7           establishing a connection to one or more of the other hosts in the cluster;

8           obtaining at least a portion of an I/O resource table from one or more of the other hosts in  
9 the network;

10          identifying the I/O resource table obtained from the other hosts in the cluster that is the most  
11 current; and

12          updating the host's local I/O resource table based on the most current I/O resource table.

1           12. A network cluster comprising:

2           a database storing a list of hosts in the cluster and their addresses;

3           a plurality of I/O resources;

4           a plurality of hosts each coupled over a network to each of the I/O resources, each host  
5 including:

6           an I/O resource table stored in a local storage device, each I/O resource table  
7 identifying a configuration and an allocation of the I/O resources in the cluster;

8                   an I/O resource management agent provided within the host's operating system, the  
9 I/O resource management agent obtaining the list of the hosts in the cluster and their addresses from  
10 the database, the I/O resource management agent establishing a connection to one or more other  
11 hosts in the cluster to obtain at least a portion of the I/O resource table from the other hosts and then  
12 updating its local I/O resource table if the other host's I/O resource table is more current than its local  
13 I/O resource table.

1           13. A host provided in a network cluster that includes a plurality of hosts and plurality of I/O  
2 resources coupled together over a network, the cluster including a central database storing a list of  
3 the hosts in the cluster and their addresses, each host comprising:

4                   an I/O resource table stored in a local storage device, the I/O resource table  
5 identifying a configuration and an allocation of the I/O resources in the cluster;

6                   an I/O resource management agent provided within the host's operating system, the  
7 I/O resource management agent obtaining the list of the hosts in the cluster and their addresses from  
8 the database, the I/O resource management agent obtaining at least a portion of the I/O resource table  
9 from one or more of the other hosts in the cluster and then updating its local I/O resource table if any  
10 of the other host's I/O resource table is more current than its local I/O resource table.

1           14. The host of claim 13 wherein the central database stores a list of the hosts and the I/O  
2 units in the cluster and each of their addresses.

1           15. The host of claim 14 wherein said I/O resource management agent comprises an I/O  
2 resource management agent provided within the host's operating system, the I/O resource  
3 management agent obtaining the list of the hosts and I/O units in the cluster and their addresses from  
4 the database, the I/O resource management agent obtaining at least a portion of the I/O resource table  
5 from each of the other hosts in the cluster and then updating its local I/O resource table if any of the  
6 other host's I/O resource table is more current than its local I/O resource table, the I/O resource  
7 management agent establishing a connection to one or more of the I/O units in the cluster and  
8 determining if any I/O devices coupled to each I/O unit have been added or removed and updating  
9 its local I/O resource table accordingly.

1           16. The host of claim 13 wherein said I/O resource table comprises a cluster resource table.